

A. CLASSIFICATION OF SUBJECT MATTER

Int.Cl' G09F9/00, H05B33/14, H01L29/786, H01L21/288, H01L27/088

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl' G09F9/00, H05B33/10-33/28, H01L29/786, H01L21/288, H01L21/768, H01L27/088

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Japanese Utility Model Gazette 1922-1996, Japanese Publication of Unexamined Utility Model Applications 1971-2005, Japanese Registered Utility Model Gazette 1994-2005, Japanese Gazette Containing the Utility Model 1996-2005

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	JP 7-312290 A (NEC CORPORATION) 1995.11.28	1,12
Y	paragraph [0037]-[0047], figs. 2-4 & US 5747930 A1 & EP 684753 A1	2-11,13-47
Y	JP 2003-058077 A (FUJI PHOTO FILM CO., LTD.) 2003.02.28 whole document (family:none)	2-11,13-47
Y	JP 2000-259099 A (SEIKO EPSON CORPORATION) 2000.09.22 paragraph [0028], [0040], figs.3,8 & US 6614053 B1 & CN 1269520 A & TW 498553 B	10
Y	JP 2000-269336 A (TOSHIBA CORPORATION) 2000.09.29 whole document & TW 449818 B	22-35



Further documents are listed in the continuation of Box C.



See patent family annex.

- * Special categories of cited documents:
- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier application or patent but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed
- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- "&" document member of the same patent family

Date of the actual completion of the international search

07.02.2005

Date of mailing of the international search report

01.3.2005

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/JP2004/016814

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	JP 2001-281438 A (SEIKO EPSON CORPORATION) 2001.10.10 paragraph [0039], [0054], figs.1-12 (family:none)	22-35
Y	JP 2003-050405 A (MATSUSHITA ELECTRIC INDUSTRIAL Co., LTD.) 2003.02.21 paragraph [0078]-[0088], figure 14,15 & US 2002/056838 A1 & EP 1209748 A1 & CN 1353329 A	31-35